

Title (en)

FIN FOR HEAT EXCHANGER, GUIDE, AND METHOD OF USING THE GUIDE

Title (de)

RIPPE FÜR WÄRMETAUSCHER, FÜHRUNG UND VERFAHREN ZUR VERWENDUNG DER FÜHRUNG

Title (fr)

AILETTE POUR ÉCHANGEUR THERMIQUE, GUIDE ET PROCÉDÉ D'UTILISATION DU GUIDE

Publication

**EP 2141434 A4 20140611 (EN)**

Application

**EP 08722279 A 20080317**

Priority

- JP 2008054884 W 20080317
- JP 2007070337 A 20070319

Abstract (en)

[origin: EP2141434A1] It is an object to raise heat exchange efficiency. A heat exchanger-use fin (1) is a fin attached to heat transfer tubes and is equipped with a fin body (11), a plurality of collars (13) and erect portions (14). The fin body (11) extends in a predetermined direction (91), and plural holes (12) into which the heat transfer tubes are inserted are disposed in the fin body (11) along the predetermined direction (91). The collars (13) are erected surrounding the holes, such that one collar surrounds each hole, on the same side with respect to the fin body (11). When the heat exchanger-use fin (1) is seen from the collars (13) side, the collars (13) are all disposed between two straight lines (101, 102) that extend along the predetermined direction (91) on a surface (111) of the fin body (11), and outer peripheries (131) of the collars (13) contact the two straight lines (101, 102). The erect portions (14) are erected on the fin body (11) on the same side as the collars (13) and are positioned outside the two straight lines (101, 102). Distal ends (141) of the erect portions (14) are in higher positions than distal ends (132) of the collars (13) when seen from the surface (111).

IPC 8 full level

**F28F 1/32** (2006.01); **B21D 53/08** (2006.01); **F28F 13/06** (2006.01)

CPC (source: EP KR US)

**B21D 53/08** (2013.01 - EP KR US); **F28F 1/32** (2013.01 - KR); **F28F 1/325** (2013.01 - EP US); **F28F 13/06** (2013.01 - EP US)

Citation (search report)

- [X] JP H11281279 A 19991015 - SHARP KK
- [X] JP H0949641 A 19970218 - SAMSUNG ELECTRONIC
- [X] JP H09152288 A 19970610 - HITACHI LTD
- See references of WO 2008114775A1

Cited by

EP3062053A1; US10209012B2; US11162741B2

Designated contracting state (EPC)

AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MT NL NO PL PT RO SE SI SK TR

DOCDB simple family (publication)

**EP 2141434 A1 20100106**; **EP 2141434 A4 20140611**; AU 2008227549 A1 20080925; AU 2008227549 B2 20101118; CN 101636631 A 20100127; JP 2008232497 A 20081002; JP 4293252 B2 20090708; KR 20090127343 A 20091210; US 2010018691 A1 20100128; WO 2008114775 A1 20080925

DOCDB simple family (application)

**EP 08722279 A 20080317**; AU 2008227549 A 20080317; CN 200880008612 A 20080317; JP 2007070337 A 20070319; JP 2008054884 W 20080317; KR 20097020858 A 20080317; US 52962908 A 20080317